

Claims 19-34 were withdrawn from consideration by the Examiner as being drawn to an invention that has been non-elected with traverse.

Applicant, seeking review of the prematureness of the final rejection within the Final Office Action, respectfully requests reconsideration of the finality of the Office action for the reasons set forth hereinbelow. See M.P.E.P 706.07(c).

Rejections under 35 U.S.C. 103

Claims 1, 10-14, 17-18, 35 and 38-42 were rejected under 35 U.S.C. 103 as allegedly being obvious over U.S. Patent 5,972,459 to Kawakubo et al. (Kawakubo) in view of U.S. Patent No. 6,312,780 to Kasami et al. (Kasami) further in view of U.S. Patent No. 5,635,267 to Yamada et al. (Yamada).

Claim 5 was rejected under 35 U.S.C. 103 as allegedly being obvious over Kawakubo in view of Kasami in view of Yamada and in further view of U.S. Patent No. 6,187,431 to Katsuragawa.

These rejections are respectfully traversed for at least the above reasons and the following reasons.

The above-identified application was filed after November 29, 1999, and above-identified application and Kasami were, at the time the invention of the above-identified application was made, commonly owned by Sony Corporation of Tokyo, Japan. Thus, **Kasami is disqualified as prior art.** See 35 U.S.C. 103(c) and M.P.E.P 706.02(1)(1).

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Conclusion

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

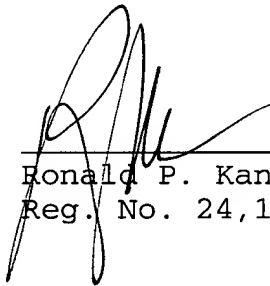
If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753 or the undersigned attorney at the below-listed number.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Respectfully submitted,

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APPENDIX

IN THE CLAIMS

1. An optical recording medium [for performing at least one of recording and reproduction of information by irradiation of light,] comprising;

on a substrate with fine concavities and convexities formed on a surface thereof on a side onto which said irradiation of light is performed a formed film layer the surface of which is made a surface of fine concavities and convexities representing said fine concavities and convexities and which has at least a recording layer; and

a light transmission flattenable film which buries therein the fine concavities and convexities surface, and which has a transmission characteristic with respect to the irradiated light, and which has its surface polished and has a hardness enabling it to be polished,

wherein said light transmission flattenable film consists of inorganic flattenable material having a thickness that is 400 nm or less.

2-4. (canceled).

5. The optical recording medium according to claim 1, wherein the substrate consists of organic material substrate made of polyether sulfone (PES) or polyether imide (PEI).

6-9. (canceled).

10. The optical recording medium according to claim 1, wherein the thickness of the light transmission flattenable film is 100 nm or less.

11. The optical recording medium according to claim 1, wherein the light transmission flattenable film consists of spin-coat flattenable material having SiO_2 as a main component.

12. The optical recording medium according to claim 1, wherein the light transmission flattenable film has a level of flatness by having protrusions eliminated that damage an optical system disposed in the proximity of and in opposition to the surface of the light recording medium and performs the irradiation of light.

13. The optical recording medium according to claim 1, wherein the fine concavities and convexities have lands and grooves;

the difference in level between the land and the groove is selected to be at a value which only causes mutual interaction between these two to less occur with respect to the irradiated light; and

the recording of the information is performed with respect to the recording layer of either, or both, of the land and the groove.

14. The optical recording medium according to claim 42, wherein a backing layer of dielectric material is formed on a surface where the light transmission flattenable film is formed.

15-16. (canceled).

17. The optical recording medium according to claim 1, wherein the recording layer has a material layer the phase of which is changed by the irradiation of light from an amorphous state of low reflectance to a crystalline state of high reflectance or vice versa.

18. An optical recording medium according to claim 1, wherein the recording layer has a material layer the state of magnetization of which is changed by the irradiation of light.

19. A manufacturing method of an optical recording medium for performing at least one of recording and reproduction of information by irradiation of light, comprising:

a manufacturing step of manufacturing a substrate having fine concavities and convexities formed on the surface thereof on a side onto which the irradiation of light is performed;

a forming step of forming a formed film layer the surface of which is made a fine concavities and convexities surface reflecting the fine concavities and convexities on itself and which has at least a recording layer;

a forming step of forming a light transmission flattenable film which has buried in the formed film layer the fine concavities and convexities surface, and which has a transmission characteristic with respect to the irradiated light, has its surface polished and has a hardness enabling it to be polished; and

a polishing step of polishing at least the surface of the light transmission flattenable film.

20. The manufacturing method of an optical recording medium according to claim 19, wherein before executing the forming step of forming the light transmission flattenable film there is executed a step of eliminating or truncating protrusions on the surface of the substrate.

21. The manufacturing method of an optical recording medium according to claim 19, wherein the polishing step is a flying tape polish (FTP) step.

22. The manufacturing method of an optical recording medium according to claim 19, wherein in the forming step of the formed film layer there is executed a step of forming a reflection film on the substrate.

23. The manufacturing method of an optical recording medium according to claim 19, wherein the forming step of the formed film layer uses a method of forming a film by sputtering.

24. The manufacturing method of an optical recording medium according to claim 19, wherein the formation of the light transmission flattenable film is performed at a temperature of 150°C or less.

25. The manufacturing method of an optical recording medium according to claim 19, wherein the substrate is formed using an organic substrate material; and

the formation of the light transmission flattenable film is performed at a temperature of 150°C or less.

26. The manufacturing method of an optical recording medium according to claim 19, wherein the formation of the light transmission flattenable film is performed using a spin-coating method of inorganic material.

27. The manufacturing method of an optical recording medium according to claim 19, wherein the formation of the light transmission flattenable film is performed to a thickness of 400 nm or less.

28. The manufacturing method of an optical recording medium according to claim 19, wherein the formation of the light transmission flattenable film is performed to a thickness equal to or smaller than the thickness of the formed film layer.

29. The manufacturing method of an optical recording medium according to claim 19, wherein the light transmission flattenable film is formed using a spin-coating method of performing spin-coating with respect to a flattenable material having SiO₂ as a main component.

30. The manufacturing method of an optical recording medium according to claim 19, wherein the fine concavities and convexities have lands and grooves;

the difference in level between the land and the groove is selected to be at a value which only causes mutual interaction between these two to less occur with respect to the irradiated light; and

the recording layer of either, or both, of the land and the groove is used as a recording portion of the information.

31. The manufacturing method of an optical recording medium according to claim 19, wherein after executing the forming step of the formed film layer having at least the recording layer there is executed the forming step of the light transmission flattenable film via a step of forming a dielectric backing layer on the surface of the formed film layer.

32. The manufacturing method of an optical recording medium according to claim 19, wherein after executing the forming step of the formed film layer having at least the recording layer there is executed the forming step of the light transmission flattenable film via a step of forming a dielectric backing layer on the surface of the formed film layer; and

the dielectric backing layer is formed using a material layer to enhance the surface hardness of the optical recording medium.

33. The manufacturing method of an optical recording medium according to claim 19, wherein the recording layer is formed using a material layer the phase of which is changed by the irradiation of light from an amorphous state of low reflectance to a crystalline state of high reflectance or vice versa.

34. The manufacturing method of an optical recording medium according to claim 19, wherein the recording layer is formed using a material layer the state of magnetization of which is changed by the irradiation of light.

35. The optical recording medium according to claim 1, wherein said light transmission flattenable film is capable of being polished.

36. The optical recording medium according to claim 42, wherein said backing layer is a first dielectric, said light transmission flattenable layer is a second dielectric, and said surface layer is a third dielectric.

37. The optical recording medium according to claim 36, wherein said first dielectric, said second dielectric and said third dielectric are the same dielectric.

38. The optical recording medium according to claim 42, wherein said light transmission flattenable film is on said formed film layer.

39. The optical recording medium according to claim 38, wherein said backing layer is on said formed film layer, said light transmission flattenable layer is formed on said backing layer, and said surface layer is on said light transmission flattenable layer.

40. The optical recording medium according to claim 1, wherein said formed film layer includes a reflection film, a first dielectric film and a phase change recording layer.

41. The optical recording medium according to claim 40, wherein said reflection film is formed on said substrate, said first dielectric film is formed on said reflection film, and said phase change recording layer is formed on said first dielectric film.

42. The optical recording medium according to claim 1, wherein said light transmission flattenable film includes a backing layer, a light transmission flattenable layer and a surface layer, said backing layer being above said formed film layer, said light transmission flattenable layer being above said backing layer, said surface layer being above said light transmission flattenable layer.